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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/826,731

04/16/2004

K. William Mopper

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MICHAEL BEST & FRIEDRICH LLP  
Two Prudential Plaza  
180 North Stetson Avenue, Suite 2000  
CHICAGO, IL 60601

EXAMINER

WILSON, JOHN J

ART UNIT

PAPER NUMBER

3732

MAIL DATE

DELIVERY MODE

06/07/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/826,731

Applicant(s)

MOPPER, K. WILLIAM

Examiner

John J. Wilson

Art Unit

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 16-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 16-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 and 16-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nemetz et al (6149430) in view of Jefferies (6093084) and Suh et al (6386865).

Nemetz shows a dental bur used with a low speed hand piece for finishing work, column 6, lines 5-12. Nemetz does not show the specific use of the device with finishing work that includes a resin based material. Jefferies shows doing finishing work with a resin based material, column 10, line 44. It would be obvious to one of ordinary skill in the art to modify Nemetz to include the use of a resin based material as shown by Jefferies in order to make use of well known materials for tooth repair. Nemetz does not state the torque used. The terminology "high torque" is a relative term that is broad and subject to interpretation. It is held that the inherent torque of Nemetz is within the range of "high torque". Further, it is noted that the claim is directed to using a bur, which is merely a tool that can be turned at a speed and torque by a dental drill instrument, as such, it is held that the shown bur is capable of being driven at a high torque and therefore can be called a low speed, high torque bur. The above combination does not show using a fluted bur or creating secondary to tertiary anatomy. Suh teaches using a fluted bur to obtain occlusal anatomy, column 18, lines 57-59. It would be obvious to one of ordinary

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skill in the art to modify the above combination to include using a fluted bur for occlusal anatomy as shown by Suh in order to best shape the restoration. To create secondary and tertiary anatomy when shaping the tooth is well known in the art, and as such, would have been obvious to the skilled artisan. Creating a smooth enamel-like finish is held to be a broad limitation because the term smooth is relative and open to interpretation, and as such, this step would be obvious in the use of the method above. To call the steps of contouring and smoothing a single step is merely naming known steps. The range of flutes used is an obvious matter of choice in the degree of a known parameter to one of ordinary skill in the art. As to claim 2-4, Nemetz teaches low speed as being less than 50,000 rpm, column 6, line 10, while Jefferies teaches finishing work at speeds of 50-10,000 rpm, column 17, lines 25-30. The specific range of low speed used is an obvious matter of choice in degree of a known parameter to one of ordinary skill in the art. This holding of obviousness is further supported because the shown bur is capable of operating at the rpm claimed if used with a dental drill that actually operates at such speeds. As to claim 4, the ability to maintain continuous pressure and constant speed depends on the degree of pressure applied by the user and is held to be an obvious matter of choice in the degree of pressure used. As to claims 7, 8, 22 and 23, Jefferies teaches that burs can be formed from steel or carbide, column 16, lines 40-47. As to claims 16-21 using more than one bur with increasing flutes to provide for increased level of fine finishing is well known in the art, and as such, using two burs is an obvious matter of choice to one of ordinary skill in the art.

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Claims 9 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nemetz et al (6149430) in view of Jefferies (6093084) and Suh et al (6386865) as applied to claim 1 above, and further in view of Gerteisen (3872594). The above combination does not show using straight flutes. Gerteisen shows straight flutes in the drawings. It would be obvious to one of ordinary skill in the art to modify the above combination to include using straight flutes as shown by Gerteisen in order to make use of known flute types to obtain the desired results.

#### ***Terminal Disclaimer***

The terminal disclaimer filed on April 12, 2007 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of the 6,783,366 patent has been reviewed and is accepted. The terminal disclaimer has been recorded.

#### ***Response to Arguments***

Applicant's arguments filed April 12, 2007 have been fully considered but they are not persuasive. Applicant argues that there is no showing of a single step, however, it is held as stated above that any bur is capable of being driven at low speed and high torque. Using a bur for the steps described would be obvious to one of ordinary skill in the art.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Wilson whose telephone number is 571-272-4722. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez, can be reached at 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

***/John J Wilson/  
Primary Examiner  
Art Unit 3732***

jjw  
June 1, 2007